B. TRANSITIONING N1-2 TO PRIMARY FROM OFF/DIAGNOSTIC/STANDBY WHILE N1-1 IS PRIMARY

1. VERIFY MDM STATES

PCS1 Node 1: C&DH: MDM N1-1

PRIMARY NCS MDM Node 1

√ STATE - Primary
√ MDM ID - N1-1

If N1-2 is Off, go to step 2
If N1-2 is in Diagnostic state, go to step 3
If N1-2 is in Standby state, go to step 5

2. IF N1-2 IS INITIALLY OFF, BRING IT TO STANDBY

PCS1 Node 1: C&DH: MDM N1-2

SECONDARY NCS MDM Node 1

'RPCM _N1RS2_C'

sel RPC 13 (Nod1_2_MDM)

RPCM _N1RS2_C_RPC_13 Detail

√ Position - Op
sel Commands
cmd Close **Execute**
√ Position - Cl

(Wait at least 90 seconds for MDM to start up, finish POST, and go to Standby State).

Go to step 4

3. IF N1-2 IS INITIALLY IN DIAGNOSTIC STATE, BRING IT TO STANDBY

PCS1 Node 1: C&DH: MDM N1-2

SECONDARY NCS MDM Node 1

√ Frame Count - <static>

PCS1 Node 1: C&DH: MDM N1-1

PRIMARY NCS MDM Node 1

'Software Control'

sel Transmit Mode Code

Primary_NCS_Transmit_Mode_Code

sel Primary NCS Xmt Mode Code Commands
cmd Xmt_Stat_Word_Tmplt
enter Bus ID - 2
enter RT Address - 5 **Execute**
√ Subsystem Flag Set - X (set)

(If Subsystem Flag Bit is set, N1-2 MDM is in Diagnostic State and is ready to accept diagnostic commands)

PCS1 Node 1: C&DH: MDM N1-1

PRIMARY NCS MDM Node1

'Software Control'

sel MDM Utilities
sel Commands

NOTE

1. Check with MCC for which command to send (reinit from DRAM or EEPROM).

2. For DRAM Reinitialization:
   a. Startup process will execute from the UAS currently loaded in DRAM.
   b. No POST is performed.

3. For EEPROM Reinitialization:
   a. Reinitialize MDM from EEPROM will cause the loss of all current information in the DRAM such as BST, current Bus, RT, and application configurations…
   b. All UAS and default Configuration Tables will be loaded from EEPROM
   c. Normal POST will be performed

If reinitialize from DRAM
cmd N1_2_MDM_Re_Init_MDM_DRAM **Execute**
If reinitialize from EEPROM
cmd N1_2_MDM_Re_Init_MDM_EEPROM **Execute**

Wait 60 seconds for MDM to reinitialize

PCS1 Node 1: C&DH: MDM N1-2

SECONDARY NCS MDM Node 1

√ Frame Count - <incrementing>

'MDM Major State:'

√ STATE - Standby
√ MDM ID - N1-2

* * * * * * *
* If state is not Standby, √ **MCC** *****
*** * * * * * ***

4. VERIFY N1-2 IS IN STANDBY STATE

PCS1 Node 1: C&DH: MDM N1-2

SECONDARY NCS MDM Node 1

√ Frame Count - <incrementing>

'MDM Major State:'

√ MDM State - Standby
√ MDM ID - N1-2

5. COMMAND N1-1 TO SECONDARY, (N1-2 SHOULD GO TO PRIMARY)

PCS1 Node 1: C&DH: MDM N1-1

PRIMARY NCS MDM Node 1

NOTE

1. Sending the following command will cause the loss of PCS1, Early COMM, and OIU telemetry until OIU reconfiguration and PCS2 reconnection are done.

2. Possible PDI DECOM Fail message.

'MDM Major State:'

sel Commands
cmd N1-1_MDM_Xsitn_Second_State **Execute**
√ Frame Count - <static> (loss of PCS1 telemetry)

(N1-2 should go to Primary in 20 seconds).

6. TELEMETRY RECOVERY ON PCS2

PCS2 After boot up when task -bar appears at bottom of display
sel Arrow directly above “PCS” logo
sel Start/Restart PCS CDS
sel Icon to open PCSCDS Main Control Panel Window

√ Status Box is Green and ‘Connected’ is displayed in the PCS CDS Main Control Panel Window

NOTE
PCS connection to MDM is indicated by ‘Green’ in the Status Box and/or ‘Connected’ message displayed in the PCS CDS Main Control Panel Window.

* * * * * * * * * *
* If Status Box is not Green, select ‘Connect to MDM’ icon to *
* reconnect. *
* If still no joy, close all displays and all iconified items and *
* repeat this step. *
* √ **MCC** if Status Box is still not green. *
* * * * * * * * * *

7. VERIFY N1-2 IS PRIMARY AND N1-1 IS SECONDARY

PCS2 Node 1: C&DH: MDM N1-2

PRIMARY NCS MDM Node 1

√ Frame Count - <incrementing>

‘MDM Major State:’

√ MDM ID - N1-2
√ MDM State - Primary

PCS2 Node 1: C&DH: MDM N1-1

SECONDARY NCS MDM Node 1

√ Frame Count - <incrementing>

‘MDM Major State:’

√ MDM ID - N1-1
√ MDM State - Secondary

* * * * * * * *
* If States are not correct or no N1-2 TLM *
* √ **MCC** *
* * * * * * * *

8. TELEMETRY RECOVERY ON EARLY COMM (GROUND ONLY)

NOTE
Early COMM should reconnect to N1-2 MDM on the other Orb bus automatically in about 10 seconds after N1-2 MDM becomes Primary.

Node 1: C&DH: MDM N1-2

PRIMARY NCS MDM Node 1

√ Frame Count - <incrementing>

'MDM Major State:'

√ MDM ID - N1-2
√ MDM State - Primary

* * * * * * * * * *
* If Frame Count is Static after 20 seconds from the moment *
* N1-2 becomes Primary (no Early COMM telemetry received), *
* √ **MCC** *
* * * * * * * * * *

9. TELEMETRY RECOVERY ON OIU

NOTE
Possible PDI DECOM Fail message.

CRT

SM 212 OIU
BUS 3 BC - ITEM 11 EXEC
BUS 4 RT - ITEM 14 EXEC
Change OIU N1 Physical Device to N1-2 - ITEM 18 + 3 EXEC

CRT Reload OIU FORMAT 2 - ITEM 1 + 2 EXEC

CRT SM 210 NODE
√ PHY ID PRI MDM - N1-2
√ STATE - PRI
√ FAIL - <blank>
√ FRM CTR - <incrementing>